

## **ABSTRACT**

The process relates to composition of metalworking fluid and for its preparation based on heavy alkyl benzenes having 22 to 26 carbon atoms to replace mineral oil and process for the same.

A process for heavy alkylate based less toxic metalworking fluid composition comprising of heavy alkyl benzene, one emulsifier which is a sodium oleate, sulfonate or mixtures thereof, a vegetable oil as lubricity booster, an antioxidant, a fungicide, an extreme pressure additive, an antirust, a co-surfactant, a coupling agent and alkali component. The process comprising of removing of insoluble matter from the heavy alkylate, addition of emulsifier, additives, coupling agent and co-surfactant, homogenizing the mixture at 20 – 120 °C, followed by conditioning of the metal working fluid concentrate which can be used as emulsion in water.